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# INITIAL ENVIRONMENTAL EXAMINATION

## PROJECT/ACTIVITY DATA

Project/Activity Name:	Strengthening Biomedical Equipment Management Capacity in Haiti (REPARE)
Geographic Location(s) (Country/Region):	Haiti/Caribbean Region
Amendment (Yes/No), if Yes indicate # (1, 2...):	Yes
Implementation Start/End Date (FY or M/D/Y):	October 1, 2015 - September 30, 2019
If Amended, specify New End Date:	September 30, 2020
Solicitation/Contract/Award Number(s):	
Implementing Partner(s):	St. Boniface Haiti Foundation
Bureau Tracking ID:	LAC-IEE-20-04
Tracking ID of Related RCE/IEE (if any):	LAC-IEE-16-14, LAC-IEE-16-43, LAC-IEE-17-03
Tracking ID of Other, Related Analyses:	This IEE amends LAC-IEE-17-03

## ORGANIZATIONAL/ADMINISTRATIVE DATA

Implementing Operating Unit(s): (e.g. Mission or Bureau or Office)	USAID/Haiti
Other Affected Operating Unit(s):	
Lead BEO Bureau:	LAC
Funding Account(s) (if available):	ES-SUP/2010/2012
Original Funding Amount:	\$407,500,000
If Amended, specify funding amount:	\$333,333
If Amended, specify new funding total:	\$407,833,333
Prepared by:	Olbeg Desinor, Acting Health Office Director
Date Prepared:	September 19, 2019

## ENVIRONMENTAL COMPLIANCE REVIEW DATA

Analysis Type:	<input checked="" type="checkbox"/> Environmental Examination	<input type="checkbox"/> Deferral
Environmental Determination(s):	<input checked="" type="checkbox"/> Categorical Exclusion(s) <input checked="" type="checkbox"/> Negative <input type="checkbox"/> Positive <input type="checkbox"/> Deferred (per 22 CFR 216.3(a)(7)(iv))	
IEE Expiration Date (if applicable):	September 30, 2019	
Additional Analyses/Reporting Required:		
Climate Risks Identified (#):	Low <u>1</u>	Moderate <u>    </u> High <u>    </u>
Climate Risks Addressed (#):	Low <u>1</u>	Moderate <u>    </u> High <u>    </u>

# THRESHOLD DETERMINATION AND SUMMARY OF FINDINGS

## PROJECT/ACTIVITY SUMMARY

In Haiti, non-functioning and poorly maintained medical equipment can have devastating consequences for patients seeking life-saving health services. In partnership with the United States Agency for International Development (USAID), the General Electric (GE) Foundation, the Haitian Ministry of Health (MSPP), and the W. K. Kellogg Foundation (WKKF), the St. Boniface Haiti Foundation (SBHF) has built a replicable model for addressing biomedical equipment management in Haiti. The REPARE program trains local Haitian biomedical engineering technicians (BMETs) to repair and maintain biomedical equipment and to support their clinician colleagues, fulfilling a critical need within Haiti's healthcare system.

Accomplishments during the three-year initial REPARE cooperative agreement:

- Seven full-time REPARE-trained BMETs working at four hospitals;
- 23 REPARE-trained BMETs working at public hospitals across the country;
- 96 Haitian medical professionals trained in maintenance and proper use of biomedical equipment at facilities throughout the country;
- The development of a new work order database at St. Boniface Hospital that enables more efficient repair and maintenance of on-site equipment; and
- 95% of biomedical equipment at St. Boniface Hospital is in service.

This proposed program extension builds on the accomplishments of the REPARE program thus far, providing advanced training to REPARE graduates and training BMETs throughout Haiti to strengthen the capacity of local health systems across the country. In extending the program, SBHF expects to achieve the following key results in collaboration with USAID and partners:

1. Maintain St. Boniface Hospital's biomedical equipment repair program and repair shop, ensuring high quality care for patients and high-quality training for medical residents.
2. Provide advanced training and support for up to seven REPARE-trained BMETs employed throughout Haiti, reinforcing their existing knowledge and advancing their skills.
3. Offer at least three for BMETs and clinicians at MSPP-sponsored health facilities throughout Haiti, with topics identified by BMETs and clinicians.
4. Expand use of the work order database created under the REPARE program to MSPP sponsored hospitals throughout Haiti, supporting a more systematic and organized approach to biomedical equipment repair and maintenance.
5. Establish a Minimum Standard Equipment List for MSPP-sponsored hospitals to support their ongoing procurement and maintenance efforts.
6. The BMETs supported through this program will become more independent in their current roles and better able to train their peers and colleagues, thereby contributing to a market-based solution to biomedical equipment management in Haiti.

This public/private alliance will create a cost effective, market-driven model for supporting biomedical equipment management that can be replicated in other resource settings.



## ENVIRONMENTAL DETERMINATIONS

Upon approval of this document, the determinations become affirmed, per Agency regulations (22 CFR 216).

**TABLE 1: ENVIRONMENTAL DETERMINATIONS**

Projects/Activities	Categorical Exclusion Citation (if applicable)	Negative Determination	Positive Determination <sup>1</sup>	Deferral <sup>2</sup>
<b>Activity 1: Haitian technicians install, maintain, and repair medical equipment at St. Boniface Hospital, and provide trainings and technical support to clinical staff at St. Boniface Hospital.</b>				
Sub-activity 1.1: Employ up to 2 biomedical engineering technicians at St. Boniface Hospital	§216.2(c)(2)(viii): Programs involving nutrition, health care or population and family planning services except to the extent designed to include activities directly affecting the environment (such as construction of facilities, water supply systems, waste water treatment, etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sub-activity 1.2: Strengthen tracking and management of all maintenance and repair requests using the hospital's electronic work order system.	§216.2(c)(2)(viii)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sub-activity 1.3: Ensure inter-departmental collaboration between the S.B.H. Foundation biomedical engineering technician team and the facilities maintenance staff.	§216.2(c)(2)(viii)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sub-activity 1.4: Provide training with key clinical staff members on biomedical equipment.		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sub-activity 1.5: Provide/purchase equipment, accessories, and spare parts.	§216.2(c)(2)(viii)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Activity 2: SBHF BMET staff to work in advisory roles with biomedical technicians at select GOH Ministry hospitals to ensure high-functioning medical equipment is available to aid clinicians in providing effective, high-quality service to patients.</b>				
Sub-activity 2.1: Provide remote and/or on-site technical support to	§216.2(c)(2)(viii): Programs involving nutrition, health care or	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

<sup>1</sup> Positive Determinations require preparation of a Scoping Statement and Environmental Assessment.

<sup>2</sup> Deferrals must be cleared through an Amendment to this IEE prior to implementation of any deferred activities.

Projects/Activities	Categorical Exclusion Citation (if applicable)	Negative Determination	Positive Determination <sup>1</sup>	Deferral <sup>2</sup>
biomedical technicians at selected Ministry-sponsored hospitals in Haiti.	population and family planning services except to the extent designed to include activities directly affecting the environment (such as construction of facilities, water supply systems, waste water treatment, etc.)			
Sub-activity 2.2: Develop and maintain a system for prioritizing equipment repairs and replacements.	§216.2(c)(2)(viii)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sub-activity 2.3: Assist biomedical technicians at Ministry-sponsored hospitals with locations and acquisition of necessary supplies to complete repairs on and maintain key equipment.	§216.2(c)(2)(viii)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sub-activity 2.4: Work with biomedical staff at Ministry hospitals to strengthen tracking and management of all maintenance and repair requests.	§216.2(c)(2)(viii)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Activity 3: Work with the Health Ministry to conduct biomedical equipment trainings for a skilled workforce of biomedical technicians and medical professionals throughout Haiti.</b>				
Sub-activity 3.1: Ensure communications between SBHF and biomedical technicians and clinical staff at Ministry-sponsored hospitals.	§216.2(c)(2)(viii): Programs involving nutrition, health care or population and family planning services except to the extent designed to include activities directly affecting the environment (such as construction of facilities, water supply systems, waste water treatment, etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
[Sub-activity 3.2: Extend training support to Ministry-supported health facilities and clinical staff around the country.	§216.2(c)(2)(i): Education, technical assistance, or training programs except to the extent such programs include activities directly affecting the environment (such as	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Projects/Activities	Categorical Exclusion Citation (if applicable) construction of facilities, etc.)	Negative Determination	Positive Determination <sup>1</sup>	Deferral <sup>2</sup>
[Sub-activity 3.3: Provide trainings to biomedical technicians around Haiti on key biomedical equipment topics.		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sub-activity 3.4: Provide on-going training for key clinical staff members on biomedical equipment at Ministry hospitals.	§216.2(c)(2)(i)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## CLIMATE RISK MANAGEMENT

Per ADS 201, all strategies, projects, and activities must be screened for climate risk management (CRM). Due to the nature of most activities being related to technical assistance, medical equipment purchasing capacity building, document and information sharing, meetings, workshops, etc., these activities neither have a direct or indirect impact on the environment nor are substantively impacted by climate change, and therefore have a **low** climate risk rating. The only likely effect such activities will suffer from due to climate change is the potential disturbance of normal activity functions due to increasing temperatures (i.e., the cancellation of meetings that would have been held in non-air conditioned rooms during heat waves) and the increasing frequency of extreme weather events (i.e., cancellation of activities due to disrupted road and telecommunication networks).

## BEO SPECIFIED CONDITIONS OF APPROVAL

Not Applicable

## IMPLEMENTATION

In accordance with 22 CFR 216 and Agency policy, the conditions and requirements of this document become mandatory upon approval. This includes the relevant limitations, conditions and requirements in this document as stated in Sections 3, 4, and 5 of the IEE and any BEO Specified Conditions of Approval.

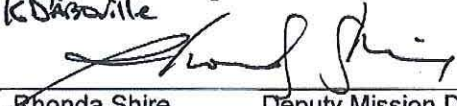


## USAID APPROVAL OF INITIAL ENVIRONMENTAL EXAMINATION

**PROJECT/ACTIVITY NAME:** Strengthening Biomedical Equipment Management Capacity in Haiti

**Bureau Tracking ID:** \_\_\_\_\_

Approval:  10/24/19  
Gary Juste, Acting Mission Director Date

Clearance:  10/24/19  
Rhonda Shire, Deputy Mission Director Date

Clearance:  10/16/19  
Martha Dye, Regional Legal Officer Date

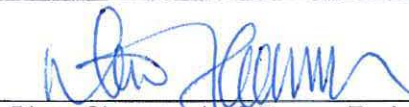
Clearance:  10/10/2019  
Olbeg Desnir, Acting Health Office Director Date

Clearance:  10/10/2019  
Jeanne Marcia Tancil, AOR Date

Clearance:  10/15/19  
Abdel Abellard, Mission Environmental Officer Date

Clearance: Cleared by email (See attached) 10/10/2019  
Bethzaida Colon, Regional Environmental Advisor Date

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Concurrence:  10/28/2019  
Diana Shannon, LAC Bureau Environmental Officer Date

# INITIAL ENVIRONMENTAL EXAMINATION

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## 1.0 PROJECT/ACTIVITY DESCRIPTION

### 1.1 PURPOSE OF THE IEE

The purpose of this document, in accordance with Title 22, Code of Federal Regulations, Part 216 (22 CFR 216), is to provide a preliminary review of the reasonably foreseeable effects on the environment of the USAID intervention described herein and recommend determinations and, as appropriate, conditions, for these activities. Upon approval, these determinations become affirmed, and specified conditions become mandatory obligations of implementation. This IEE also documents the results of the Climate Risk Management process in accordance with USAID policy (specifically, ADS 201mal).

This IEE is a critical element of USAID's mandatory environmental review and compliance process meant to achieve environmentally sound design and implementation. Potential environmental impacts should be addressed through formal environmental mitigation and monitoring plans (EMMPs), if needed.

This IEE will serve as a stand-alone document to cover the REPARE activity. This activity was previously covered under LAC-IEE-17-03 which addressed all the activities described herein through the end of FY2019. LAC-IEE-17-03 is an "umbrella" IEE/environmental threshold decision that addressed the entirety of the Mission's health portfolio. Stand-alone IEEs will be developed for all Mission mechanisms as part of the new strategy of the environmental compliance team. This new IEE will only cover REPARE activities

### 1.2 ACTIVITY OVERVIEW

The activity is located in the remote, rural region of Fond des Blancs in the southwest region of Haiti. St. Boniface Hospital, owned and operated by SBHF, serves as the referral hospital for over 2.3 million, the vast majority of whom are extremely poor. The hospital relies on functioning medical equipment to deliver health services with a high standard of care. Nonfunctioning biomedical equipment (also known as biomedical devices) presents significant challenges to health care professionals in Haiti. The World Health Organization and other researchers note that at any given time, 40-70% of the equipment in hospitals and clinics in the developing world is not functioning. A 2010 study of seven hospitals in Haiti found only 30% of 115 pieces of medical equipment that were evaluated were working and 14% of the equipment in the hospitals could not be repaired. This has real-life consequences, as it robs medical professionals of vital tools they need to provide care. A broken anesthesia machine renders lifesaving surgical care impossible. A malfunctioning incubator denies a neonate's opportunity for a safe start. In Haiti, a major reason for interruptions to delivery of high-quality services is nonfunctioning biomedical equipment, due to the absence of training programs for Haitian professionals who could ensure the sustainability of these critical services. The BMETs currently in Haiti often charge fees for their services that are cost-prohibitive for hospitals and other care facilities.

Under this program, the target population includes the BMET trainees, key clinicians, hospital administrative staff who are involved in the use and maintenance of equipment, and partners and stakeholders who will aid in developing the program on a national scale—including the MSPP. This program is designed to have a long-term impact on all persons, regardless of gender, seeking health care services at the facilities supported by the BMET and trainees by the project activities. SBHF strives to ensure that both men and women have equal access to



services provided at St. Boniface Hospital regardless of the socio-economic limitations they face with respect to access to resources.

### 1.3 PROJECT/ACTIVITY DESCRIPTION

The objective of the program is to advance a replicable model for addressing biomedical equipment management in Haiti. This will be achieved through public-private partnerships with the WKKF, Massachusetts General Hospital (MGH), and Partners in Health/Zanmi Lasante (PIH/ZL) as well as a regional partnership with the Haitian Ministry of Health. With support from USAID over the past three years, SBHF has laid the foundation for a market-based solution for servicing and repairing medical equipment in Haiti. SBHF will continue to leverage the networking potential and strengths of the partners listed above, as well as harnessing existing in-country expertise. This public/private network of partners will continue to build a cost-effective model for supporting lifesaving health services that can be replicated in other resource-poor settings. SBHF proposes leveraging the generous financial and technical support of USAID to aid in strengthening the long-lasting capacity of St. Boniface Hospital and selected facilities in the country to improve management of biomedical equipment.

**TABLE 2: DEFINED ACTIVITIES AND SUB-ACTIVITIES**

**Activity 1** — Haitian technicians install, maintain, and repair medical equipment at St. Boniface Hospital, and provide trainings and technical support to clinical staff at St. Boniface Hospital

Sub-activity 1.1 – SBHF to employ up to two biomedical engineering technicians at St. Boniface Hospital.

Sub-activity 1.2 – Strengthen tracking and management of all maintenance and repair requests using the hospital's electronic work order system.

Sub-activity 1.3 – Ensure inter-departmental collaboration between SBHF and biomedical technician team and the facilities maintenance staff.

Sub-activity 1.4 – Provide on-going training with key clinical staff members on biomedical equipment.

Sub-activity 1.5 – Provide/purchase equipment, accessories, and spare parts.

**Activity 2** — SBHF biomedical engineering technician staff to work in advisory roles with biomedical technicians at selected Ministry hospitals to ensure high-functioning medical equipment is available to aid clinicians in providing effective, high-quality service to patients.

Sub-activity 2.1 – Provide remote and/or on-site technical support to biomedical technicians at selected Ministry-sponsored hospitals in Haiti.

Sub-activity 2.2 – Develop and maintain a system for prioritizing equipment repairs and replacements.

Sub-activity 2.3 – Assist biomedical technicians at Ministry-sponsored hospitals with location and acquisition of necessary supplies to complete repairs on and maintain key equipment.

Sub-activity 2.4 – Work with biomedical staff and Ministry hospitals to strengthen tracking and management of all maintenance and repair requests.

**Activity 3** — Work with Health Ministry to conduct biomedical equipment trainings for a skilled workforce of biomedical technicians and medical professionals throughout Haiti.

Sub-activity 3.1 – Ensure communication between SBHF and biomedical technicians and clinical staff at Ministry-sponsored hospitals.

Sub-activity 3.2 – Extend training support to Ministry-supported health facilities and clinical staff around the country.

Sub-activity 3.3 – Provide trainings to biomedical technicians around Haiti on key biomedical equipment topics.

Sub-activity 3.4 – Provide on-going training for key clinical staff members on biomedical equipment at Ministry hospitals.

Will this project/activity involve construction<sup>3</sup> as defined by ADS 201 and 303? Yes ☐ No ☒

If yes, describe in the space below:

N.A.

## 2.0 BASELINE ENVIRONMENTAL INFORMATION

### 2.1 LOCATIONS AFFECTED AND ENVIRONMENTAL CONTEXT (ENVIRONMENT, PHYSICAL, CLIMATE, SOCIAL, THREATENED AND ENDANGERED SPECIES)

The SBHF activity has a focus on the Fond des Blancs region of southwest Haiti, although Health Ministry hospitals Haiti-wide will benefit from activity trainings regarding biomedical equipment operation and maintenance. This activity will not impact, negatively nor positively, the natural or physical environment of Haiti; including no impact on threatened or endangered species. The activity is anticipated to have a positive impact on the social setting, there is a direct linkage regarding how many physically ill Haitians will have access to improved health services that directly relate to new and/or improved biomedical equipment availability and improved health for many residents; especially at the St. Boniface Hospital, as well as additional Health Ministry operated hospitals.

### 2.2 APPLICABLE AND APPROPRIATE PARTNER COUNTRY AND OTHER INTERNATIONAL STANDARDS (E.G. WHO), ENVIRONMENTAL AND SOCIAL LAWS, POLICIES, AND REGULATIONS

The social setting regarding adherence to best practices for hospital equipment purchase, use, and maintenance will adhere to the best international standards as employed by the St. Boniface Haiti Foundation, including partner organizations such as the Massachusetts General Hospital, W.K. Kellogg Foundation, Partners in Health/Zanmi Lasante, and the General Electric Foundation.

### 2.3 COUNTRY/MINISTRY/MUNICIPALITY ENVIRONMENTAL CAPACITY ANALYSIS (AS APPROPRIATE)

The social setting regarding the operation and maintenance of hospital biomedical equipment has been extensively studied by the St. Boniface Haiti Foundation. That analysis directly informed the design of the activity presented herein.

<sup>3</sup> **Construction, as defined by ADS 201 and 303**, includes: construction, alteration, or repair (including dredging and excavation) of buildings, structures, or other real property and includes, without limitation, improvements, renovation, alteration and refurbishment. The term includes, without limitation, roads, power plants, buildings, bridges, water treatment facilities, and vertical structures. In the box below, describe any construction planned for this project/activity. Refer to [ADS 303.100](#) for required Construction Risk Management procedures.



### 3.0 ANALYSIS OF POTENTIAL ENVIRONMENTAL RISK

**TABLE 3A. POTENTIAL IMPACTS – ACTIVITY 1**

<b>Activity</b>	<b>Potential environmental and social impacts</b>
<b>Activity 1: Haitian technicians install, maintain, and repair medical equipment at St. Boniface Hospital, and provide trainings and technical support to clinical staff at St. Boniface Hospital</b>	
Sub-activity 1.1: SBHF to employ up to two biomedical engineering technicians at St. Boniface Hospital.	No environmental (natural or physical) impacts; socially, the employment of two additional Haitians is positive; more importantly from a social aspect, the indirect impact of the two biomedical technicians on improving the health of many Haitians in the Fond des Blanc region and beyond.
Sub-activity 1.2: Strengthen tracking and management of all maintenance and repair requests using the hospital's electronic work order system	No environmental (natural or physical) impacts; no direct social impacts; numerous positive social impacts on hospital patients whose health/lives are improved.
Sub-activity 1.3: Ensure inter-departmental collaboration between SBHF and biomedical technician team and the facilities maintenance staff	No environmental (natural or physical) impacts; no direct social impacts; numerous positive social impacts on hospital patients whose health/lives are improved.
Sub-activity 1.4: Provide on-going training with key clinical staff members on biomedical equipment.	Potential for environmental Health and Safety Hazard
Sub-activity 1.5: Provide/purchase equipment, accessories, and spare parts.	No environmental nor social impacts.

**TABLE 3B. POTENTIAL IMPACTS – ACTIVITY 2**

<b>Activity</b>	<b>Potential environmental and social impacts</b>
<b>Activity 2: SBHF biomedical engineering technician staff to work in advisory roles with biomedical technicians at selected Ministry hospitals to ensure high-functioning medical equipment is available to aid clinicians in providing effective, high-quality service to patients.</b>	
Sub-activity 2.1 – Provide remote and/or on-site technical support to biomedical technicians at selected Ministry-sponsored hospitals in Haiti.	No environmental (natural or physical) impacts; no direct social impacts; numerous positive social impacts on hospital patients whose health/lives are improved.
Sub-activity 2.2 – Develop and maintain a system for prioritizing equipment repairs and replacements.	No environmental nor social impacts
Sub-activity 2.3 – Assist biomedical technicians at Ministry-sponsored hospitals with location and acquisition of necessary supplies to complete repairs on and maintain key equipment.	No environmental nor social impacts
Sub-activity 2.4 – Work with biomedical staff and Ministry hospitals to strengthen tracking and management of all maintenance and repair requests.	No environmental nor social impacts

**TABLE 3C. POTENTIAL IMPACTS – ACTIVITY 3****Activity****Potential environmental and social impacts****Activity 3: Work with Health Ministry to conduct biomedical equipment trainings for a skilled workforce of biomedical technicians and medical professionals throughout Haiti**

Sub-activity 3.1 – Ensure communication between SBHF and biomedical technicians and clinical staff at Ministry-sponsored hospitals.	No environmental ((natural or physical) impacts; no direct social impacts; numerous positive social impacts on hospital patients whose health/lives are improved.
Sub-activity 3.2 – Extend training support to Ministry-supported health facilities and clinical staff around the country.	No environmental ((natural or physical) impacts; no direct social impacts; numerous positive social impacts on hospital patients whose health/lives are improved.
Sub-activity 3.3 – Provide trainings to biomedical technicians around Haiti on key biomedical equipment topics.	Potential for waste generation as well as environmental Health and Safety Hazard
Sub-activity 3.4 – Provide on-going training for key clinical staff members on biomedical equipment at Ministry hospitals.	No environmental ((natural or physical) impacts; no direct social impacts; numerous positive social impacts on hospital patients whose health/lives are improved.

## 4.0 ENVIRONMENTAL DETERMINATIONS

### 4.1 RECOMMENDED ENVIRONMENTAL DETERMINATIONS

The following table summarizes the recommended determinations based on the environmental analysis conducted. Upon approval, these determinations become affirmed, per 22 CFR 216. Specified conditions, detailed in Section 5, become mandatory obligations of implementation, per ADS 204.

**TABLE 4: ENVIRONMENTAL DETERMINATIONS**

<b>Projects/Activities</b>	<b>Categorical Exclusion Citation (if applicable)</b>	<b>Negative Determination</b>	<b>Positive Determination<sup>4</sup></b>	<b>Deferral<sup>5</sup></b>
<b>Activity 1: Haitian technicians install, maintain, and repair medical equipment at St. Boniface Hospital, and provide trainings and technical support to clinical staff at St. Boniface Hospital.</b>				
Sub-activity 1.1: Employ up to 2 biomedical engineering technicians at St. Boniface Hospital	§216.2(c)(2)(viii) – Programs involving nutrition, health care, or population and family planning services except to the extent designed to include activities directly affecting the environment (such as construction of facilities, water supply systems, waste water treatment,	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

<sup>4</sup> Positive Determinations require preparation of a Scoping Statement and Environmental Assessment.

<sup>5</sup> Deferrals must be cleared through an Amendment to this IEE prior to implementation of any deferred activities.



Projects/Activities	Categorical Exclusion Citation (if applicable) etc.)	Negative Determination	Positive Determination <sup>4</sup>	Deferral <sup>5</sup>
Sub-activity 1.2: Strengthen tracking and management of all maintenance and repair requests using the hospital's electronic work order system.	§216.2(c)(2)(viii)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sub-activity 1.3: Ensure inter-departmental collaboration between the S.B.H. Foundation biomedical engineering technician team and the facilities maintenance staff.	§216.2(c)(2)(viii)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sub-activity 1.4: Provide training with key clinical staff members on biomedical equipment.		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sub-activity 1.5: Provide/purchase equipment, accessories, and spare parts.	§216.2(c)(2)(viii)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Activity 2: SBHF BMET staff to work in advisory roles with biomedical technicians at select GOH Ministry hospitals to ensure high-functioning medical equipment is available to aid clinicians in providing effective, high-quality service to patients.</b>				
Sub-activity 2.1: Provide remote and/or on-site technical support to biomedical technicians at selected Ministry-sponsored hospitals in Haiti.	§216.2(c)(2)(viii)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sub-activity 2.2: Develop and maintain a system for prioritizing equipment repairs and replacements.	§216.2(c)(2)(viii)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sub-activity 2.3: Assist biomedical technicians at Ministry-sponsored hospitals with locations and acquisition of necessary supplies to complete repairs on and maintain key equipment.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sub-activity 2.4: Work with biomedical staff at Ministry hospitals to strengthen tracking and management of all maintenance and repair requests.	§216.2(c)(2)(viii)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Activity 3: Work with the Health Ministry to conduct biomedical equipment trainings for a skilled workforce of biomedical technicians and medical professionals throughout Haiti.</b>				
Sub-activity 3.1: Ensure communications between	§216.2(c)(2)(viii)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Projects/Activities	Categorical Exclusion Citation (if applicable)	Negative Determination	Positive Determination <sup>4</sup>	Deferral <sup>5</sup>
SBHF and biomedical technicians and clinical staff at Ministry-sponsored hospitals.				
[Sub-activity 3.2: Extend training support to Ministry-supported health facilities and clinical staff around the country.	§216.2(c)(2)(i): Education, technical assistance, or training programs except to the extent such programs include activities directly affecting the environment (such as construction of facilities, etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
[Sub-activity 3.3: Provide trainings to biomedical technicians around Haiti on key biomedical equipment topics.		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sub-activity 3.4: Provide on-going training for key clinical staff members on biomedical equipment at Ministry hospitals.	§216.2(c)(2)(i)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## 4.2 CLIMATE RISK MANAGEMENT

This section summarizes the methodology used and findings of the Climate Risk Management (CRM) Screening, in accordance with ADS 201ma. The project design team, in consultation with a climate impact specialist, considered the potential effect of climate risks/stressors on the sustainability of the project (changing precipitation patterns, rising temperature, floods, droughts, fires, landslides, etc.) in addition to the impact of project activities on the climate (increased greenhouse gas emissions, land use changes, etc.). See Annex 1 for the complete CRM table.

## 5.0 CONDITIONS AND MITIGATION MEASURES

### 5.1 CONDITIONS

The environmental determinations in this IEE are contingent upon full implementation of the following general implementation and monitoring requirements, as well as ADS 204 and other relevant requirements.

#### 5.1.1 During Pre-Award:

- 5.1.1.1 Pre-Award Briefings: As feasible, the design team and/or the cognizant environmental officer(s) (e.g., MEO, REA, BEO) will provide a pre-award briefing for potential offerors on environmental compliance expectations/responsibilities at bidders' conferences.



- 5.1.1.2 Solicitations: The design team, in coordination with the A/CO, will ensure solicitations include environmental compliance requirements and evaluation criteria. A/CO will ensure technical and cost proposal requirements include approach, staffing, and budget sufficient for complying with the terms of this IEE.
- 5.1.1.3 Awards: The A/COR, in coordination with the A/CO, will ensure all awards and sub-awards, include environmental compliance requirements.

#### **5.1.2 During Post-Award:**

- 5.1.2.1 Post-Award Briefings: The A/COR and/or the cognizant environmental officer(s) (e.g., MEO, REA, BEO) will provide post-award briefings for the IP on environmental compliance responsibilities.
- 5.1.2.3 Workplans and Budgeting: The A/COR will ensure the IP integrates environmental compliance requirements in work plans and budgets to comply with requirements, including EMMP implementation and monitoring.
- 5.1.2.4 Staffing: The A/COR, in coordination with the IP, will ensure all awards have staffing capacity to implement environmental compliance requirements.
- 5.1.2.5 Records Management: The A/COR will maintain environmental compliance documents in the official project/activity file and upload records to the designated USAID environmental compliance database system.
- 5.1.2.6 Host Country Environmental Compliance: The A/COR will ensure the IP complies with applicable and appropriate host country environmental requirements unless otherwise directed in writing by USAID. However, in the case of a conflict between the host country and USAID requirements, the more stringent shall govern.
- 5.1.2.7 Work Plan Review: The A/COR will ensure the IP verifies, at least annually or when activities are added or modified, that activities remain with the scope of the IEE. Activities outside of the scope of the IEE cannot be implemented until the IEE is amended.
- 5.1.2.8 IEE Amendment: If new activities are introduced or other changes to the scope of this IEE occur, an IEE Amendment will be required.
- 5.1.2.14 USAID Monitoring Oversight: The A/COR or designee, with the support of the cognizant environmental officer(s) (e.g., MEO, REA, BEO), will ensure monitoring of compliance with established requirements (e.g., by desktop reviews, site visits, etc.).
- 5.1.2.16 Environmental Compliance Mitigation and Monitoring Plan: The A/COR will ensure the IP develops, obtains approval for, and implements Environmental Mitigation and Monitoring Plans (EMMPs) that are responsive to the stipulated environmental compliance requirements.

- 5.1.2.17 Environmental Compliance Reporting: The A/COR will ensure the IP includes environmental compliance in regular project/activity reports, using indicators as appropriate; develops and submits the Environmental Mitigation and Monitoring Reports (EMMRs); and completes and submits a Record of Compliance (RoC) describing their implementation of EMMP requirements in conjunction with the final EMMR or at the close of sub activities (as applicable). And where required by Bureaus or Missions, ensure the IP prepares a closeout plan consistent with contract documentation for A/COR review and approval that outlines responsibilities for end-of-project operation, the transition of other operational responsibilities, and final EMMR with lessons learned.
- 5.1.2.18 Corrective Action: When noncompliance or unforeseen impacts are identified, IPs notify the A/COR, place a hold on activities, take corrective action, and report on the effectiveness of corrective actions. The A/COR initiates the corrective action process and ensures the IP completes and documents their activities. Where required by Bureaus or Missions, ensure Record of Compliance is completed.

## **5.2 AGENCY CONDITIONS**

- 5.2.1 Sub-award Screening: The A/COR will ensure the IP uses an adequate environmental screening tool to screen any sub-award applications and to aid in the development of EMMPs.
- 5.2.2 Programmatic IEEs (PIEE): PIEEs stipulate requirements for additional environmental examination of new or country specific projects/activities. The A/COR of any project/activity being implemented under a PIEE will ensure appropriate reviews are conducted, typically through a Supplemental IEE, and approved by the cognizant BEO.
- 5.2.3 Supplemental IEEs (SIEEs): An SIEE will be prepared for any new project/activity being planned which fall under a PIEE. The SIEE will provide more thorough analysis of the planned activities, additional geographic context and baseline conditions as well as specific mitigation and monitoring requirements.
- 5.2.4 Other Supplemental Analyses: The A/COR will ensure supplemental environmental analyses that are called for in the IEE are completed and documented.
- 5.2.5 Resolution of Deferrals: If a deferral of the environmental threshold determination was issued, the A/COR will ensure that the appropriate 22CFR216 environmental analysis and documentation is completed and approved by the BEO before the subject activities are implemented.
- 5.2.6 Positive Determination: If a Positive Determination threshold determination was made, the A/COR will ensure a Scoping Statement, and if required an Environmental Assessment (EA), is completed and approved by the BEO before the subject activities are implemented.



- 5.2.7 Compliance with human subject research requirements: The AM, A/COR shall assure that the IP and sub-awardees, -grantees, and -contractors demonstrate completion of all requirements for ethics review and adequate medical monitoring of human subjects who participate in research trials carried out through this IEE and ensure appropriate records are maintained. All documentation demonstrating completion of required review and approval of human subject trials must be in place prior to initiating any trials and cover the period of performance of the trial as described in the research protocol.

### **5.3 MITIGATION MEASURES**

Apart from the provision/purchase of biomedical equipment, the bulk of this overall activity is geared to the implementation of mitigation measures/procedures at the St. Boniface Hospital, and participating Health Ministry hospitals nation-wide, so that biomedical equipment is maintained routinely to ensure that necessary, life-saving equipment is available when needed. All sub-activities under each of the three primary activities in themselves are mitigation measures to ensure that hospital staff (biomedical and repair personnel) are trained to implement the measures to ensure safe handling and use of the biomedical equipment. No additional mitigation measures are required.

In essence, all sub-activities of the three primary activities constitute the minimum required mitigation measures based on available information at the time of this IEE and the environmental analysis in Section 4.

## **6.0 LIMITATIONS OF THIS INITIAL ENVIRONMENTAL EXAMINATION**

The determinations recommended in this document apply only to projects/activities and sub-activities described herein. Other projects/activities that may arise must be documented in either a separate IEE, an IEE amendment if the activities are within the same project/activity, or other type of environmental compliance document and shall be subject to an environmental analysis within the appropriate documents listed above.

Other than projects/activities determined to have a Positive Threshold Determination, it is confirmed that the projects/activities described herein do not involve actions normally having a significant effect on the environment, including those described in 22 CFR 216.2(d).

In addition, other than projects/activities determined to have a Positive Threshold Determination and/or a pesticide management plan (PERSUAP), it is confirmed that the projects/activities described herein do not involve any actions listed below. Any of the following actions would require additional environmental analyses and environmental determinations:

- Support project preparation, project feasibility studies, or engineering design for activities listed in §216.2(d)(1);
- Affect endangered and threatened species or their critical habitats per §216.5, FAA 118, FAA 119;
- Provide support to extractive industries (e.g. mining and quarrying) per FAA 117;
- Promote timber harvesting per FAA 117 and 118;

- Lead to new construction, reconstruction, rehabilitation, or renovation work per §216.2(b)(1);
- Support agro-processing or industrial enterprises per §216.1(b)(4);
- Provide support for regulatory permitting per §216.1(b)(2);
- Lead to privatization of industrial facilities or infrastructure with heavily polluted property per §216.1(b)(4);
- Research, testing, or use of genetically engineered organisms per §216.1(b)(1), ADS 211
- Assist the procurement (including payment in kind, donations, guarantees of credit) or use (including handling, transport, fuel for transport, storage, mixing, loading, application, clean-up of spray equipment, and disposal) of pesticides or activities involving procurement, transport, use, storage, or disposal of toxic materials. Pesticides cover all insecticides, fungicides, rodenticides, etc. covered under the Federal Insecticide, Fungicide, and Rodenticide Act per §216.2(e) and §216.3(b).

## 7.0 REVISIONS

Per 22 CFR 216.3(a)(9), when ongoing programs are revised to incorporate a change in scope or nature, a determination will be made as to whether such change may have an environmental impact not previously assessed. If so, this IEE will be amended to cover the changes. Per ADS 204, it is the responsibility of the USAID A/COR to keep the MEO/REA and BEO informed of any new information or changes in the activity that might require revision of this environmental analysis and environmental determination.

### ATTACHMENTS:

Annex 1: Climate Risk Management Summary Table for Activity



# ANNEX 1. ACTIVITY CLIMATE RISK MANAGEMENT SUMMARY TABLE

Tasks/Defined or Illustrative Interventions	Climate Risks <sup>6</sup>	Risk Rating <sup>7</sup>	How Risks are Addressed <sup>8</sup>	Opportunities to Strengthen Climate Resilience <sup>9</sup>
Activity 1 - Haitian technicians install, maintain, and repair medical equipment at St. Boniface Hospital, and provide trainings and technical support to clinical staff at St. Boniface Hospital.				
Sub-activity 1.1 - Employ up to 2 biomedical engineering technicians at St. Boniface Hospital	<p>Increased temperatures as well as increased intensity, duration and/or frequency of extreme climate-related events such as storms, floods, and high winds and/or landslides may:</p> <ul style="list-style-type: none"> <li>• Damage or otherwise negatively impact the locations hosting meetings, events and training sites.</li> <li>• Damage or impede access routes to/from locations where trainings or consultations will take place.</li> <li>• Increase</li> </ul>	Low	Due to the low risk nature of this activity and that this activity neither has direct or indirect adverse impacts on the environment nor is physical in nature, no measures are needed to address these climate risks.	<p>Implementing partners and stakeholders should prepare to manage activities adaptively and communicate frequently to ensure flexibility to potential climate change impacts during implementation, including alternative dates and locations for meetings and alternative access routes for location-based activities.</p> <p>Facilitate interactions among stakeholders and decision makers on climate change impacts.</p>
Sub-activity 1.2 – Strengthen tracking and management of all maintenance and repair requests using the hospital's electronic work order system.				
Sub-activity 1.3 – Ensure inter-departmental collaboration between SBHF and biomedical technician team and the facilities maintenance staff.				
Sub-activity 1.4 – Provide on-going training with key clinical staff members on biomedical equipment.				

<sup>6</sup> List key risks related to the defined/illustrative interventions identified in the screening and additional assessment.

<sup>7</sup> Low/Moderate/ High

<sup>8</sup> Describe how risks have been addressed in activity design and/or additional steps that will be taken in implementation. If you chose to accept the risk, briefly explain why.

<sup>9</sup> Describe opportunities to achieve multiple development objectives by integrating climate resilience or mitigation measures

Tasks/Defined or Illustrative Interventions	Climate Risks <sup>6</sup>	Risk Rating <sup>7</sup>	How Risks are Addressed <sup>8</sup>	Opportunities to Strengthen Climate Resilience <sup>9</sup>
Sub-activity 1.5 – Provide/purchase equipment, accessories, and spare parts.	prevalence of heat-related or water-borne diseases, which could negatively impact the health of administration and/or technical staff leading trainings or those undertaking training.	Low	Due to the low risk nature of this activity and that this activity neither has direct or indirect adverse impacts on the environment nor is physical in nature, no measures are needed to address these climate risks.	
Activity 2 - SBHF biomedical engineering technician staff to work in advisory roles with biomedical technicians at selected Ministry hospitals to ensure high-functioning medical equipment is available to aid clinicians in providing effective, high-quality service to patients.				
Sub-activity 2.1 – Provide remote and/or on-site technical support to BMETs at selected Ministry-sponsored hospitals in Haiti	<p>Increased temperatures as well as increased intensity, duration and/or frequency of extreme climate-related events such as storms, floods, and high winds and/or landslides may:</p> <ul style="list-style-type: none"> <li>• Damage or otherwise negatively impact the locations hosting meetings, events and training sites.</li> <li>• Damage or impede access</li> </ul>	Low	Due to the low risk nature of this activity and that this activity neither has direct or indirect adverse impacts on the environment nor is physical in nature, no measures are needed to address these climate risks.	<p>Implementing partners and stakeholders should prepare to manage activities adaptively and communicate frequently to ensure flexibility to potential climate change impacts during implementation, including alternative dates and locations for meetings and alternative access routes for location-based activities.</p> <p>Facilitate interactions among stakeholders and decision makers on climate change impacts.</p>
Sub-activity 2.2 – Develop & maintain a system for prioritizing equipment repairs & replacements				
Sub-activity 2.3 – Assist BMETs at Ministry-sponsored hospitals with location and acquisition of necessary supplies to complete repairs on and maintain key equipment				



Tasks/Defined or Illustrative Interventions	Climate Risks <sup>6</sup>	Risk Rating <sup>7</sup>	How Risks are Addressed <sup>8</sup>	Opportunities to Strengthen Climate Resilience <sup>9</sup>
Sub-activity 2.4 – Work with BMET staff at Ministry hospitals to strengthen tracking and management of all maintenance and repair requests	<p>routes to/from locations where trainings or consultations will take place.</p> <ul style="list-style-type: none"> <li>• Increase prevalence of heat-related or water-borne diseases, which could negatively impact the health of administration and/or technical staff leading trainings or those undertaking training.</li> </ul>			
Activity 3 - Work with Health Ministry to conduct biomedical equipment trainings for a skilled workforce of biomedical technicians and medical professionals throughout Haiti.				
<p>Sub-activity 3.1: Ensure communications between SBHF and biomedical technicians and clinical staff at Ministry-sponsored hospitals.</p> <p>[Sub-activity 3.2: Extend training support to Ministry-supported health facilities and clinical staff around the country.</p> <p>[Sub-activity 3.3: Provide trainings to biomedical technicians around Haiti</p>	<p>Increased temperatures as well as increased intensity, duration and/or frequency of extreme climate-related events such as storms, floods, and high winds and/or landslides may:</p> <ul style="list-style-type: none"> <li>• Damage or otherwise negatively impact the locations hosting</li> </ul>	Low	Due to the low risk nature of this activity and that this activity neither has direct or indirect adverse impacts on the environment nor is physical in nature, no measures are needed to address these climate risks.	Implementing partners and stakeholders should prepare to manage activities adaptively and communicate frequently to ensure flexibility to potential climate change impacts during implementation, including alternative dates and locations for meetings and alternative access routes for

Tasks/Defined or Illustrative Interventions	Climate Risks <sup>6</sup>	Risk Rating <sup>7</sup>	How Risks are Addressed <sup>8</sup>	Opportunities to Strengthen Climate Resilience <sup>9</sup>
<p>on key biomedical equipment topics.</p> <hr/> <p>Sub-activity 3.4: Provide on-going training for key clinical staff members on biomedical equipment at Ministry hospitals.</p>	<p>meetings, events and training sites.</p> <ul style="list-style-type: none"> <li>• Damage or impede access routes to/from locations where trainings or consultations will take place.</li> <li>• Increase prevalence of heat-related or water- borne diseases, which could negatively impact the health of administration and/or technical staff leading trainings or those undertaking training.</li> </ul>			<p>location-based activities.</p> <p>Facilitate interactions among stakeholders and decision makers on climate change impacts.</p>